TELESCIENCES

Howard Oringer
Chairman of the Board
Chief Executive Officer

June 17, 1991

Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: Comments of TeleSciences, Inc. Concerning the Harris Petition for Rulemaking to Channelize the 28 GHz Band (RM No. 7722)

Dear Ms. Searcy:

TeleSciences, Inc. hereby submits these brief comments on the Petition for Rulemaking submitted by Harris Corporation -- Farinon Division ("Harris") requesting that the Commission commence a rulemaking proceeding to adopt a channelization plan for the 27.5-29.5 GHz frequencies and amend the Commission's Rules to permit private operational fixed microwave services licensed under Part 94 to use these frequencies. Harris argues that these rule amendments are required to authorize the necessary microwave links to interconnect cells in personal communication service ("PCS") systems, alleviate congestion in the lower frequencies currently available to Part 21 common carrier microwave licensees, and to satisfy customer demand for use of the 28 GHz frequencies. TeleSciences opposes Harris' requests and urges the Commission to deny its petition.

TeleSciences is a well-established manufacturer of high quality digital microwave radio and fiber optic transmission systems.[1/] Located near Silicon Valley, TeleSciences is a major supplier of sophisticated communications products to operating telephone companies, cellular radio operators, utilities and

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1/ TeleSciences also participates in a joint venture -- Motorola Microwave -- with Motorola, Inc., a leading supplier of analog and digital microwave equipment. Motorola Microwave has stated its position on Harris' proposal in separate comments filed in this proceeding.

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private networks. In order to remain at the forefront of the transmission technology market, TeleSciences monitors worldwide developments in advanced radio technologies and applications, as well as trends in customer demand. TeleSciences therefore is well-positioned to comment on Harris' proposal.

Based on TeleSciences' extensive industry experience and ongoing development work in this area, TeleSciences believes that Harris' plan to use 28 GHz frequencies to provide the microwave link among the multiple microcell sites in PCS systems raises several problems that could be avoided by using a different frequency band. Specifically, Harris claims that the higher frequencies already allocated for common carrier microwave use should be channelized because higher frequencies, with shorter path distances, will allow substantial frequency reuse that will be valuable in interconnecting the numerous cell sites of a PCS system. TeleSciences agrees with Harris that the Commission should make available higher frequency bands for use in PCS microwave but opposes Harris' view that the 28 GHz frequencies should be designated for this purpose.

TeleSciences strongly believes that the Commission should consider the approach to PCS microwave that has been adopted in other countries that have already implemented or are about to implement PCS systems. Specifically, the United Kingdom has designated the 37.0-39.5 GHz band for use in PCS microwave services. Other European countries have also expressed support for the 38 GHz band. Designating the 38 GHz band for PCS microwave in the United States therefore would be consistent with the trend in other countries. To the extent that the Commission follows a "uniform" standard, U.S. manufacturers would gain the substantial advantage of producing a product line that meets both domestic and international technical design requirements. As a U.S. equipment manufacturer competing in the international market, TeleSciences believes that the Commission should designate the 37.0-39.5 GHz band for use in PCS microwave, as supported by American Personal Communications in its recently filed petition requesting the Commission to create a new PCS service on 2 GHz frequencies. Authorizing PCS microwave use of the 38 GHz band will facilitate U.S. competition in international markets and avoid unnecessarily inflating the manufacturing costs that will ultimately be absorbed by U.S. consumers.

Further, the 38 GHz band, currently allocated to the Part 21 common carrier microwave services, provides superior frequency reuse capabilities, as compared to the 28 GHz band suggested by Harris. As such, a plan that makes the 38 GHz frequencies

available for PCS microwave, and other fixed applications, will provide the most efficient spectrum utilization possible.

In TeleSciences' view, the most efficient approach to authorizing PCS microwave, based on considerations of scarce spectrum resources, cost to end users, and the ability of U.S. firms to compete in the international arena, would be to adopt a plan that will be consistent with PCS development in other countries while providing superior frequency reuse capabilities. In light of the substantial advantages to be gained (and the absence of any material disadvantages) from using the 38 GHz band, as compared to 28 GHz frequencies, for PCS microwave in the United States, the Commission should decline to adopt a channelization plan for the 28 GHz band at this time and deny Harris' rulemaking petition.

Very truly yours,

Howard Oringer /kw

Howard Oringer

cc: Andrew D. Lipman